Citizen Science and Cryptozoology, data received from listeners during 18 years of wildlife talkback on ABC North Coast New South Wales Local Radio.

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ABSTRACT

A citizen science project was begun on 11 February 1997 with a regular live-to-air wildlife talkback segment on ABC North Coast NSW Local Radio. Listeners were encouraged to phone in to report interesting observations. This public endeavour aimed to promote interest in wildlife among the listeners and to find the range of interest that the public have with wildlife, determined by the number of species that listeners would report. The 18 years of wildlife talkback radio resulted in 342 identifiable species discussed providing evidence that the public was interested in a very wide array of wildlife species. Additional to the reports of well-known fauna species, one report of an extinct bird was received and unusual reports were regularly received describing mammals unknown to Australian zoology. This paper includes some of the stories that were received and these may contain errors and fabrications. They are recorded here so that others can learn of them. Parts of this paper are excerpts from my book, *Australian Cryptozoology*, and this paper now also gives new information. The only physical evidence for the existence of one of these animals was the discovery of a unique method of predation on wood-boring beetle larvae. This involved the precise removal of pieces of wood, 12 to 15 cm long, 3 to 4 cm wide and 1 to 2 cm thick, within one metre of the ground. This created distinctive vertical slots in the base of small green wattle trees *Acacia irrorata*. On the 27th and 28th October 2003 in the Jimna State Forest adjacent the Conondale National Park in South-east Queensland over 500 trees were examined and found to contain this precise method of predation on wood-boring beetle larvae.

Key words: ABC radio; wildlife talkback; citizen science; identifiable species; cryptozoology; unidentifiable mammals; psychological element; eyewitness reliability; physical evidence.

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Introduction

A presentation of this study entitled Value of Anecdotal Reports and Implications of Results of Amateur Zoological Researchers was given at the Dangerous Ideas in Zoology 2013 Forum of the Royal Zoological Society of New South Wales at the Australian Museum, Sydney on Saturday, 2 November 2013.

I work for ABC North Coast New South Wales Local Radio which has approximately 80,000 listeners. In 1997 I initiated live-to-air broadcasts to add an environmental dialogue to local radio and addressed issues concerning the environment. Dunlap and Van Liere proposed in their paper, the new environmental paradigm (1978), in the *Journal of Environmental Education*, that the source of the earth's ecological problems due to the anthropocentric worldview could be challenged by a new environmental paradigm, in which individuals believe in the necessity of balancing economic growth with environmental protection.

During these broadcasts I gave a synopsis on seasonal wildlife behaviour and drew parallels between the behaviour of animals and the behaviour of people and how the health of humans, society and civilisation depended on the health of the surrounding natural environment. I also received listeners' calls identifying all species of fauna from their descriptions of morphology and vocalisations.

Besides the attempt to locally increase awareness of a new environmental paradigm, the aim of the broadcasts was to gather information about the distribution and relative abundance of well-known animals and to help broaden our understanding of the current distribution of our wildlife, particularly those that are rare or outside expected distribution. From 1997 to 2006 these were fortnightly broadcasts on Tuesday mornings from 10.15 am until 10.45 am. The segment was then renamed Wildlife Wednesday and continues to operate every week throughout the year from 6.40 am. Additionally I conducted a few nationwide broadcasts.

Between 11 February 1997 and 11 February 2015 I received approximately 900 phone calls, emails, some with photographs and illustrations, and identification requests posted onto the ABC North Coast New South Wales Local Radio Facebook site. The name of the caller, the date and locality of their sightings, a

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description of the species referred to and its behaviour were recorded and placed in a table of wildlife observations resulting in 342 identifiable species discussed. Of these, 61 were invertebrate species, eight were fish, 19 were amphibian, 36 were reptile, 181 were bird and 37 were mammal species.

All of these records had at least two pieces of biological information core to science, where and when the species was observed. Darwin Core standards define over 130 different pieces of natural history information that can be associated with an individual specimen record. The minimum Darwin Core dataset is identification with its special and temporal metadata which makes it a usable scientific record (Walker 2014). Major issues with the collection of this data were its reliability and the likelihood that listeners would not take the time and effort to communicate information on wildlife species that did not stimulate their interest. The values of these observations were that they promoted interest in wildlife among the listeners and provided a starting point for further investigation and verification.

Citizen Science

The *Citizen Science* model engages a dispersed network of volunteers to assist in data collection across broad geographic regions over long periods of time with the capacity for research at a broadly ambitious scale (Cooper *et al* 2007). In their paper Scientific knowledge and attitude change: The impact of a citizen science project, Brossard *et al.* (2005) state; "citizen-science projects aim to increase participants' knowledge about science and the scientific process, and to change their attitudes toward science and the environment....these projects allow scientists to gather large sets of data, based on participants' observations, which can be used for research ultimately published in peer-reviewed journals. Substantial benefits are therefore provided to all citizen-science participants, both professional and non-professional (Bonney 2001 and Krasny and Bonney 2004)".

This citizen science endeavour has been a top-down citizen science project. Such projects require large scale data captures in which volunteers help gather the raw data. (Walker 2014). Unlike the Birdlife Australia Atlas, Atlas of Living Australia, Bowerbird, NPWS Atlas, Streamwatch, Great Koala Count and FeralScan, no financial outlay, advertising or an internet site were used. The data were collected while speaking to listeners who generally supplied only their first name and locality during the actual broadcasts. For listeners who desired to furnish or receive further information on their observations, communication was continued after the broadcast finished. Permission for data collection and publication was always asked of such listeners who wished to engage in further communication.

Results

From the table of wildlife observations recorded, a list of all the species identified was created with the number of reports received for each species. It was theorised that the majority of reports received would be on species that would attract the most attention, and this occurred. Over 18 years the largest number of reports were 25 on carpet python, followed by 20 reports on spotted-tailed quoll, 18 reports on koala, 17 reports on green tree frog, 14 reports on yellow-tailed black cockatoo, 14 reports on eastern brown snake, 11 reports on green tree snake, 11 reports on red-necked wallaby and 10 reports on laughing kookaburra. These were followed by 9 reports on cane toad, Asian house gecko and short-beaked echidna and 8 reports on red-bellied black snake, black-necked stork, common koel and Channel-billed Cuckoo. Because 300 species were reported less than five times over 18 years and only 42 species were reported five or more times a table was drawn up of the most commonly reported species (5 or more) (see Table 1).

Reports of forty six species listed in the New South Wales *Threatened Species Conservation Act 1995* were received over 18 years of which 39 were listed as vulnerable species and seven were listed as endangered species. One report was received of what would appear to be the Paradise Parrot *Psephotus pulcherrimus*, based on the description, a species listed as Extinct (*Threatened Species Conservation Act 1995* (*New South Wales*): *August 2014 list*) and listed as Extinct in the Wild (Nature Conservation Act 1992 (Queensland): December 2014 list) (see Table 2). Two reports of bird species rarely recorded in Australia were received; the Papuan Harrier *Circus spilonotus* and the Long-tailed Cuckoo *Eudynamys taitensis* (see Table 3).

I also received 117 anecdotal reports on 12 species of unidentifiable mammal of which there is no physical evidence whatsoever (see Table 4). I received 53 reports of a thylacine-like animal, 20 reports of a gorilla-like animal, 18 reports of a black panther-like animal, nine reports of a brown puma-like animal, six reports of a diprotodont-like animal, three reports of a north-east NSW tree kangaroo-like animal, three reports of a chimpanzee-like animal, one report of a family of bear-like animals, one report of a giant wombat-like animal, one report of a pygmy wombat-like animal, one report of a bunyip-like animal and one report of a mole-like animal.

Because this is live-to-air radio and I have a relationship with my 80,000 listeners, most of whom are farmers, rural workers and the citizens of villagers and small towns, I could not tell them that I did not believe them, especially since their descriptions were detailed, that they were obviously sincere and that sometimes they were speaking publicly, fully knowing that others in their community were also listening. Sometimes their neighbours would phone in and describe their own experiences with these unidentifiable mammals.

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The majority of these reports describing unidentifiable mammal were relayed to me off-air, though many others were described by listeners during the public broadcasts. Some listeners desiring information on identification of well-known animals preferred to speak in private because of a lack of experience speaking publically on live radio and because of limited time constraints while broadcasting. Those people that had encountered unexpected and unidentifiable mammals were eager to speak with me and share their experience because they were sure that I would not react negatively to their communication. They spoke about being familiar with the animals that inhabited their environment and then described what they believed were very rare large mammals that never caused problems and were only rarely encountered. I could only explain that there was no physical evidence for the animals that they were describing. I often visited the locations of these observations with the witnesses so that I could understand the habitat and to question them firsthand, repeatedly asking them different questions on their sighting to see if any details had changed.

Cryptozoology

During decades of gathering data in the field on the natural habitats of the Australian east coast, New Guinea, South-east Asia and the western coast of the United States of America, identifying the flora and fauna, I would always ask local biologists, naturalists, rangers, foresters, farmers and other such people working and dwelling in and adjacent natural habitat for their most interesting wildlife observations. I received and usually recorded many interesting stories of their encounters with both common and rarely seen species. On extremely rare occasions I would encounter stories of unidentifiable animals.

When I started the live-to-air wildlife-talk-back broadcasts I was expecting to primarily receive enquiries on methods of dealing with wildlife causing problems, house, garden and farm pests, problems with birds flying into windows and birds with annoyingly loud calls. Although these were received and answered, the majority of responding listeners required the identification of a wide array of species. I thought that I would be fortunate to receive calls on distinctive rare species such as spotted-tailed quolls and brush-tailed phascogales. I was therefore surprised to receive inquiries on the identification of animals that were unidentifiable. These reports led me to investigate the specialised field of cryptozoology.

In the abstract of the first article in the first interdisciplinary journal of the International Society of Cryptozoology, published in 1982, Bernard Heuvelmans wrote "Cryptozoology is the science of "hidden" animals". Heuvelmans coined the term 'cryptozoology' in the late 1950's from the Greek roots *kryptos* (hidden), *zoon* (animal), and *logos* (discourse) and stated that it means "the science of hidden animals." Heuvelmans writes, "But what are "hidden animals? They are those more generally

Table 1. Most commonly reported species (5 or more) over 18 years.

Species	Number of reports received
Green Tree Frog *Litoria caerulea*	17
Cane Toad *Rhinella marinus*	9
House Gecko *Hemidactylus frenatus*	9
Lace Monitor *Varanus varius*	7
Water Dragon *Physignathus lesueurrii*	6
Blue-tongued Lizard *Tiliqua scincoides*	7
Common Tree Snake *Dendrelaphis punctulata*	11
Carpet Python *Morelia spilota*	25
Red-bellied Black Snake *Pseudechis guttatus*	8
Eastern Brown Snake *Pseudonaja textilis*	14
Emu *Dromaius novaehollandiae*	5
Brush Turkey *Alectura lathami*	5
Black-necked Stork *Ephippiorhynchus asiaticus*	8
Grey Goshawk *Accipiter novaehollandiae*	6
Wedge-tailed Eagle *Aquila audax*	5
White-bellied Sea Eagle *Haliaeetus leucogaster*	5
Black Kite *Milvus migrans*	7
Bush Stone-curlew *Burhinus grallarius*	7
Topknot Pigeon *Lopholaimus antarcticus*	5
Wompoo Fruit-dove *Ptilinopus magnificus*	5
Little Corella *Cacatua sanguinea*	7
Yellow-tailed Black Cockatoo *Calyptorhynchus funereus*	14
Eastern Rosella *Platycercus eximius*	7
Common Koel *Eudynamys scolopacea*	8
Channel-billed Cuckoo *Scythrops novaehollandiae*	8
Pheasant Coucal *Centropus phasianinus*	5
Tawny Frogmouth *Podargus strigoides*	7
Laughing Kookaburra *Dacelo novaeguineae*	10
Spangled Drongo *Dicrurus bracteatus*	5
Fig Bird *Sphecotheres viridis*	5
Australian Magpie *Gymnorhina tibicen*	8
Pied Currawong *Strepera graculina*	6
Paradise Rifle Bird *Ptiloris paradiseus*	6
Torresian Crow *Corvus orru*	6
Regent Bowerbird *Sericulus chrysocephalus*	5
Satin Bowerbird *Ptilonorhynchus violaceus*	9
Platypus *Ornithorhynchus anatinus*	6
Short-beaked Echidna *Tachyglossus aculeatus*	9
Spotted-tailed Quoll *Dasyurus maculatus*	20
Brush-tailed Phascogale *Phascogale tapoatafa*	6
Koala *Phascolarctos cinereus*	18
Red-necked Wallaby *Macropus rufogriseus*	11

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Table 2. Species listed in the *Threatened Species Conservation Act 1995* reported over 18 years

Endangered Species	Locations & Behaviours	Dates Received	Observers	Localities	Descriptions & Observations	Number of Reports Received
Green Sawfish	Evans River, Brunswick River	2/5/2007 29/5/2009	Halden Boyd, Michael Stubbs	Evans Head, Brunswick Heads	Saw-shaped bill observed	2
Loggerhead Turtle *Caretta caretta*	Nesting on South Golden Beach April 1997, south Ballina & Patches Beach	13/5/1997 2/5/2007	Bob Oehlman, Halden Boyd	South Golden Beach, Evans Head		2
Black-necked Stork *Ephippiorhynchus asiaticus*	Nesting on property at Plains Station Road Tabulam since 1991, flies very low to ground when approaching nest when bringing food to young.	1/7/1997, 15/7/1997, 9/6/1998, 17/10/2000, 29/1/2004, 8/12/2010, 20/11/2013	Magda, Mrs Sheppard, Carol, Beryl, Bernie, Terry Harrison, Shane, Peter	Tuckee Tuckee, Plains Station Road Tabulam, Edenville Road Kyogle, Rock Valley, Tabulam, Laurance, Everlasting Swamp / Broadwater Swamp, Tukkean, Ballina	1/7/1997, Mrs Sheppard, pair builds nest every year in gum tree on property at Plains Station Road Tabulam, using large sticks then small sticks & grass lining, using their beaks.	8
Bush Stone-curlew *Burhinus grallarius*	On properties, 11/10/2001, Annette, chick hatched on 28/9/2001, at Koala Beach Pottsville.	22/2/1997, 11/10/2001, 1/12/2001, 31/10/2007 13/7/2011 29/5/2013, 24/12/2014	Raywood, Glen Peterson, Annette, Brian, David, Paul, Linda Banyan	Skinners Shoot Road Byron Bay, Koala Beach Pottsville, Koala Beach Pottsville, Casuarina, Lennox Head, Maclean, Tweed Heads	24/12/2014, Linda Banyan, bred for the second time in a small garden in a parking lot at Tweed Hospital.	7
Beach Stone Curlew *Esacus neglectus*	On sandy beaches & mud flats	28/12/2009 17/09/2014	Mark, Paul	Deep Creek, Rabbit Island, Clarence River, Yamba	Counted 5 birds on the island	2
Double-eyed Fig Parrot *Cyclopsitta diophthalma coxeni*	In undisturbed rainforest, 2 sightings of 2 to 3 birds each time.	18/12/2009	Raymond Curtis	North Tamborine Mountain	1st sighting Witches Falls NP, 2nd sighting Palm Grove NP, both sightings in the 1980s, both times looking down from cliffs into fig tree canopy.	1
Regent Honeyeater *Xanthomyza phrygia*	In forest	2/2/1999	Jenny	Burringbar		1
Vulnerable Species	**Locations & Behaviours**	**Dates Received**	**Observers**	**Localities**	**Descriptions**	**Number of Reports**
Stuttering Frog *Mixophyes balbus*	In forest	18/11/1997	Stuart	Hanging Rock		1
Stephens Banded Snake *Hoplocephalus stephensii*	In forest	18/11/1997	Stuart	Hanging Rock		1
Glandular Frog *Litoria. Subglandulosa*	On property on Richmond River	20/12/2006	George	Moore Park, Grevillea north of Kyogle	Gold on back, green frog, dark stripe through eye & side of body.	1
Green Turtle *Chelonia mydas*	Mating in Evans River	6/6/2007, 4/1/2012	Halden Boyd, Carol	Evans Head, Pottsville	6/6/2007, near entrance on their backs, flippers & faces touching	2
Leathery Turtle *Dermochelys coriacea*	Dead on beach	5/4/2006	Halden Boyd	Evans Head		1
Blue-billed Duck *Oxyura australis*	On McMahon's lagoon	10/5/2006	Chris	Tatum		1

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Freckled Duck *Stictonetta naevosa*	On McMahon's lagoon	10/5/2006	Chris	Tatum		1
Magpie Goose *Anseranus semipalmata*	On property, Barry had never seen them before.	27/08/2014	Barry	Casino	40 geese flew down while he was feeding his cattle	1
Comb-crested Jacana *Irediparra gallinacea*	On dam on property	28/11/2012	Andy & Juliette	Bentley		1
Black Bittern *Ixobrychus flavicollis*	Along freshwater creeks	3/3/1997, 9/11/2005	Andy Benwell, Andy Benwell	Upper Mullumbimby Creek, Upper Main Arm Brunswick River		2
Square-tailed Kite *Lophoictinia isura*	nesting	9/12/2009	Halden Boyd	Evans Head		1
Osprey *Pandion haliaetus*	Along rivers	25/3/1997, 9/8/2006	Maureen, Warren, Trish	Kyogle & Coutte's Crossing, Ballina	Counted 14 pairs nesting along Clarence River	3
Brolga *Grus rubicundus*	Wetlands, 2 adult Brolgas with 1 young	28/12/2009 3/2/2010	Mark, Terry Harrison	Deep Creek, Laurance	Everlasting Swamp, Broadwater Swamp	2
Bush Hen *Amaurornis olivaceus*	Wetland	2/2/1999	Bob	Byron Bay		1
Wompoo Fruit-dove *Ptilinopus magnificus*	On properties & at Southern Cross University, Lismore.	12/12/2002, 12/12/2002 28/10/2009 15/6/2011	John, Jim Nutter, Damian, Gary	Mount Warning, Upper Main Arm, Rosebank, Lismore.		4
Rose-crowned Fruit-dove *P. regina*	In gardens	6/5/1997, 14/4/1998, 7/9/2005, 23/07/2014	Karen, Jeff, Jan, Sue	Mullumbimby Murwillumbah Wadesville, Lismore		4
Glossy Black Cockatoo *Calyptorhynchus lathami*	In bushland	8/5/2005, 22/10/2014, 21/01/2015	Michael Stubbs, Terry, Mark	Brunswick Heads, Copmanhurst, Boundary Creek Bentley		3
Unknown black cockatoo	Flying over property	13/11/2013	Alison	Rosebank	Black cockatoo with bands of red feathers, wing-linings & secondaries, beneath both wings.	**Phone camera photograph taken & sent to me, blurred but displaying red underwing bands**
Ground Parrot *Pezoporus wallicus*	Flushed from heathland	22/2/1997	Observed by Marvin, report from Bob Oehlman	Ross Lane Lennox Heads	Green parrot amongst flowering Christmas Bells	1
Barking Owl *Ninox connivens*	On properties	12/10/1999 19/7/2001, 17/7/2003 24/09/2014	Brian, Len, Mark, Don	Federal, Kyogle, Wilsons Creek Grafton		4
Powerful Owl *N. Strenua*	On properties	29/7/1997, 31/1/2002, 26/7/2006	Ian, Sylvia, Graham Stewart	Nana Glen, Copmanhurst – Coledale, Wilsons Creek	Leaves possum tails on ground after feeding at Nana Glen, Dropped onto Noisy Pitta at Wilsons Creek	3
Grass Owl *Tyto capensis*	In Billinudgel Nature Reserve	15/7/1997	John	South Golden Beach		1
Masked Owl *T. novaehollandiae*	In eucalypt forest, Minyon Falls, Nightcap NP	04/12/2013	Wendy Bithell	Brunswick Heads	Adult holding bush rat in talons & immature giving repeated food begging calls	1

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Sooty Owl *T. tenebricosa*	On properties	20/7/2005, 8/5/2008, 16/3/2011, 8/3/2012	Helen, Gary, Phil, Carmel	Currumbin, Tamborine Mt, Federal, Wooyung	20/7/2005, Helen perched on top of water heater under house during day.	**4**
Marbled Frogmouth *Podargus ocellatus*	Flying from tree to tree in daylight beneath canopy	13/7/2010	Gary	Wanganui Gorge	Midday 4m above ground in rainforest in the shade of sheer cliff escarpment	**1**
Albert's Lyrebird *Menura alberti*	2 females building nests in Witches Falls N.P. 1 nest in top of mostly hollow standing dead tree 10m high	10/8/2003, 16/6/2010, 7/10/2012	Gary, Mark, Gary	Tamborine Mountain, Bentley, Beneath Minyon Falls Nightcap N.P.	10 lyrebirds observed Tamborine Mountain, Witches Falls N.P. Female & young in Nightcap N.P.	
White-eared Monarch *Monarcha leucotis*	In garden at Banora Point, in forest	21/10/2009 10/4/2013	Jill, Gary	Banora Point, Mt Jerusalem N.P.		**2**
Spotted-tailed Quoll *Dasyurus maculatus*	Crossing Cedar Road 6.30 am on 2/4/1997, in garden near house beside forest at night on 6/5/1997, dead on road in 1990, crossing road on 3/6/1997, others witnesses observed them on their properties at night & during day.	6/5/1997, 6/5/1997, 6/5/1997, 3/6/1997, 12/8/1997, 7/10/1997, 18/11/1997 5/9/2000, 20/2/2003, 20/11/2003 9/8/2006, 1/11/2006, 23/8/2007, 27/8/2008, 7/12/2011, 7/3/2012, 18/4/2012, 17/4/2013, 22/1/2014, 18/06/2014	Fran Allan, Nina Bishop, Clive, Robert, Greg Vail, Noel, Jan Sinclair, Michael, Terry, Len Roser, Mary, Pam, Pam, Robert Griffiths, Vicky, Val Preston, Roy, Phil, Fay, Daniel	Cedar Road Wilsons Creek, Upper Mullumbimby Creek, North Tumbulgum, Glenreagh, Upper Middle Pocket, Huonbrook, Upper Durobby Creek Road North Tumbulgum, Channon, Upper Clarence & Paddy's Flat, Bonalbo, Mount Warning, Upper Coldstream, East of Grafton, Clearville Road Uki, Black Been Road Upper Wilson's Creek, Sandy Creek Bridge Bungawalbin, Simpson Creek, Brunswick Heads, Eureka, Maclean's Ridges.	Huonbrook, 7/10/1997, Noel, defecates in same place each night; 18/11/1997, Jan Sinclair, often seen near Hogan's Scrub N.R.; 20/11/2003, Len Roser, Bonalbo, preyed on young koala; 7/3/2012, Val Preston saw 4 quolls on ground in isolated areas during daylight on Richmond Range during 1970s & 1980s; 18/4/2012 Roy saw many over decades at Sandy Creek Bridge Bungawalbin,	**20**
Brush-tailed Phascogale *Phascogale tapoatafa*	In garden & caravan, in forest on properties.	13/5/1997, 20/2/2003, 10/5/2006, 26/11/2008 24/2/2010,	Jean, Kelly, Tony, Halden Boyd, Lyn	New Italy, Toonumbah Dam Kyogle, Tyndale, New Italy, Maclean	26/11/2008, Halden Boyd, New Italy, female with 5 young Nesting within interior panel of caravan,	**5**
Koala *Phascolarctos cinereus*	In garden, on properties & in eucalypt forest	3/6/1997, 18/11/1997 20/1/1998, 23/11/1999 22/2/2002, 25/7/2002, 18/12/2003, 17/6/2004, 8/3/2006, 2/1/2007, 30/4/2008, 3/12/2008, 27/9/2009, 13/1/2010, 31/10/2012 19/2/2014, 8/10/2014,	John, Denis Miller, Molly, Peter, Allen, Michael, Dave Turner, Janelle, Ian, Gary, Louise, Halden Boyd, Gary, Graham, Genevieve, Ben, Lynn,	Coffs Harbour, Upper Durobby Creek Road, North Tumbulgum, Goonellabah, Goonengerry, Kingscliff, Tabulam, Border Ranges, Grafton Road Casino, Alstonville, Tamborine Mt, Elanora, Evans Head, Wooyung, Nimbin, Federal, Pottsville, Pottsville	31/10/2012, Genevieve, Federal, sugar glider & koala on same branch interacting, glider seemed upset & was jumping around koala which kept eyes on glider.	**17**
Squirrel Glider *Petaurus norfolcensis*	Caught on barb wire fence, 2 young in pouch	21/9/2005	Karen	Nana Glen		**1**

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Parma Wallaby *Macropus parma*	Crossed road in eucalypt forest	19/5/2009	Wendy Bithell	Nightcap N.P.	Runs Vision Walks wildlife Tours	1
Brush-tailed Rock Wallaby *Petrogale penicillata*	Great Dividing Range	14/10/2009	Leo	Tabulam	Photographed female with pouch young	1
Rufous Bettong *Aepyprymnus rufescens*	On properties, in spotted gum forest, build nests in blady grass & jump horizontally out of nest when disturbed	23/3/2006, 1/7/2007, 26/3/2008	Gary, George, Denise,	5km west of Boonah, Glenugie Peak 15km east of Grafton, Tuncurry & Gwydir River, Grafton	Mother & young, Sees their chewed fungi meals on the ground, carry nesting material curled in tail, bettongs visit at night to feed on leftover wheat.	3
Long-nosed Potoroo *Potorous tridactylus*	On property in bushland	19/7/2001	Charles	Pearce's Creek		1

Extinct Species	Locations & Behaviours	Dates Received	Observers	Localities	Descriptions	Comments
Paradise Parrot *Psephotus pulcherrimus*	In grassy eucalypt bushland, Ray was digging out his bogged vehicle when he observed the bird.	04/06/2014	Ray	Inland south-eastern Queensland, actual locality recorded.	Small parrot with a red patch on the brown wings, blue-green chest & black cap on head not reaching the eyes. Ray did not know of the paradise parrot or that it was extinct.	**First heard a sweet musical parrot call & saw the bird feeding on stamens in the flowers of a small shrub.**

Table 3. Irregular migratory birds reported.

Species	Locations & Behaviours	Dates Received	Observers	Localities	Descriptions & Observations	Comments
Papuan Harrier *Circus spilonotus*	Flying south above littoral rainforest	23/9/1997	Allen Rich, verified by ecologist Sandy Gilmore	Boulder Beach, Skinners Head, Lennox Head, North Creek Ballina	Head, nape, upper wing coverts, primary wing tips all black	Possible first record for NSW. Allen followed it by car for 2.5 km on 27/8/1997, 2nd sighting 12/9/1997.
Long-tailed Cuckoo *Eudynamys taitensis*	In garden drinking at bird bath during drought 8 to 12 Feb. 1996.	23/9/1997	Paul	Cudgen	Brown dorsally barred with golden brown, brown & white striped head, cream throat & ventrals streaked with brown	Possible first record of a NZ species that migrates to PNG

Table 4. Number of reports received for species of unidentifiable animals over 18 years.

Species	Number of reports received
Thylacine-like animals	53
Gorilla-like animals	20
Black Panther-like animals	18
Brown Puma-like animals	9
Diprotodon-like animals	7
Chimpanzee-like animals	4
Tree Kangaroo-like animals	3
Pygmy Wombat-like animal	1
Bunyip-like animal	1
Mole-like animal	1

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referred to as "unknowns," even though they are typically known to local populations – at least sufficiently so that we often indirectly know of their existence, and certain aspects of their appearance and behaviour. It would be better to call them animals "undescribed by science," at least according to prescribed zoological rules" (Heuvelmans 1982).

The International Society of Cryptozoology's board of directors at that time included scientists from all over the world. Representing Russia was Dmitri Bayanov of the Darwin Museum, Moscow. Eric Buffetaut and Philippe Janvier worked at the Laboratory of Vertebrate and Human Paleontology of the University of Paris. Nikolai Spassov worked in the Department of Mammals at the National Museum of Natural History at the Bulgarian Academy of Science. Phillip V. Tobias worked in the Department of Anatomy at the University of the Witwatersrand Medical School and represented South Africa. Zhou Guoxing represented China and worked at the Beijing Natural History Museum. Paul LeBlond represented Canada and worked at the Department of Oceanography at the University of British Columbia.

In the United States were Joseph F. Gennaro at the Department of Biology at New York University; Grover S Krantz at the Department of Anthropology at Washington State University, Leigh M. Van Valen at the Department of Biology at the University of Chicago, Forrest G. Wood, at the Biosciences Department of the Naval Ocean Systems Centre of the US Department of the Navy and George R. Zug, worked at the Department of Vertebrate Zoology of the National Museum of Natural History of the Smithsonian Institution.

The International Society of Cryptozoology published its 12 volumes between 1982 and 1996, and published 12 volumes with quarterly numbers of the ISC Newsletter during that time. Under the heading *Purpose of the Society,* the journals stated "The International Society of Cryptozoology serves as a focal point for the investigation, analysis, publication, and discussion of all matters related to animals of unexpected form or size, or unexpected occurrence in time or space. The Society also serves as a forum for public discussion and education, and for providing reliable information to appropriate authorities" (Greenwell 1982)

The first article to appear on an Australian subject in the journal of the International Society of Cryptozoology was in Volume 3 in 1984, The Orang-utan in England: an Explanation for the Use of *Yahoo* as a Name for the Australian Hairy Man, by Graham Joyner, PO Box 4253, Kingston ACT 2604, Australia. In the abstract it states, "The Australian hairy man or Yahoo was the subject of speculation throughout most of the 19th Century and beyond. The name Yahoo was often held to be an Aboriginal word, although it was also attributed to Swift. It is suggested that the word Yahoo was used to describe the adult orang-utan when that animal first arrived in England. This appears to be the reason for its use in Australia" (Joyner 1984).

The second article to appear on an Australian subject was in Volume 5 in 1985, The Yahoo, The Yowie, and Reports of Australian Hairy Bipeds, by Colin P. Groves, Department of Anthropology, The Australian National University, Canberra, A.C.T. 2601, Australia. In the abstract it states "Questions surrounding the supposed Yahoo, Yowie, or the supposed wild man of south-eastern Australia are examined in light of what is known of the Australian mammal fauna, the nomenclature of the Wildman, the role of the Wildman in both Aboriginal and Anglo cosmologies, and the claimed existence of the wild man himself. A giant marsupial, such as a wombat, may have survived the megafaunal extinctions, giving rise to the wild man reports" (Groves 1985).

The third article to appear on an Australian subject was in Volume 8 in 1989, Analysis of the Australian "Hairy Man" (Yahoo) Data, by Malcolm Smith, No 7, 23rd Avenue, Brighton, Brisbane, Queensland 4017 Australia. In the abstract it states, "Reports of "hairy men" (Yahoos) in Australia for the period 1871-1912 are examined. The relatively small numbers of eyewitness accounts are characterized by a low level of detail, conflicting descriptions, and a high level of second-hand reportage. The analysis of individual sightings suggests that most can be explained by encounters with isolated Aboriginal males interpreted in the light of a developing settler myth. The evidence for the existence of an unknown primate in the area is very poor" (Smith 1989).

Two articles on an Australian subject appear in Volume 9 in 1990. The first is The Thylacine: A Case for Current Existence on Mainland Australia by Athol M. Douglas, 372 Lesmurdie Road, Lesmurdie, Western Australia, 6076, Australia. In the abstract it states "The thylacine, *Thylacinus cynocephalus*, also known as the Tasmanian Tiger or Wolf, has been believed extinct on the island of Tasmania since 1936 and on the mainland of Australia for several thousand years. However, sightings of an animal apparently identical to the thylacine have been reported consistently from many parts of the Australian mainland for decades. Investigation of reports from people who have reported sightings of the thylacine in Western Australia are reviewed, and doubt is cast on the carbon 14 dating of a thylacine carcass found in a cave at Mundrabilla Station, Western Australia" (Douglas 1990).

The second article on an Australian subject in Volume 9 is Scientific Discovery and the Place of the Yahoo in Australian Zoological History by Graham C. Joyner, PO Box 4253, Kingston ACT 2604, Australia. In the abstract it states, "Discovery is an extended process in which observation needs to be accompanied by the necessary conceptualization. The Yahoo (or Australian "gorilla") may be seen as an unresolved anomaly set against a background involving such anomalies as platypus eggs, marsupial birth, the African gorilla and the Queensland

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Lungfish" (Joyner 1990).

Previous to the published articles in the journals of The International Society of Cryptozoology, papers, articles and books written by zoologists were published describing unidentifiable mammals in Australia. The *Proceedings of the Zoological Society of London* 1871 published a letter from Mr. B. G. Sheridan, police magistrate at Cardwell, to the zoologist Sclater concerning the striped marsupial cat (Sheridan 1871). The *Papers and Proceedings of the Royal Society of Tasmania,* 1872, published an article by Charles Gould, entitled; Large aquatic animals (Gould 1872). Carl Lumholtz M.A., member of the Royal Society of Sciences of Norway, published in 1889 his book "*Among Cannibals, an account of four years' travels in Australia and of camp life with the Aborigines of Queensland*" in which he describes the Yarri, an Aboriginal name for carnivorous marsupials including an animal that he believed, from their descriptions, to be a marsupial tiger (Lumholtz 1890).

The Wild Animals of Australasia, published in 1926, was the first comprehensive book to collect in one volume, information concerning all the Australasian mammals. Le Souef and Burrell listed amongst the Dasyuridae a Striped Marsupial Cat stating "There exists in North Australia a large striped animal, which has aptly been described as "a cat just growing into a tiger". Though seen on several occasions, we have not yet had a specimen in any of our museums" (Le Souef and Burrell 1926).

Furred Animals of Australia, written by Ellis Troughton, C.M.Z.S., F.R.Z.S., and Curator of Mammals at the Australian Museum from 1919 to 1958 and published in eight editions from1941 to 1965, also included a section on the Striped Marsupial Cat (Troughton 1941). Australian Museum scientist Gilbert Whitley wrote an article in the *Australian Museum Magazine*, issue no. 7, 1 March 1940, entitled Mystery Animals of Australia, which included the bunyip (Whitley 1940). Charles Barrett wrote the book *The Bunyip and other Mythical Monsters and Legends,* (Barrett 1946).

Bernard Heuvelmans wrote, *On the Track of Unknown Animals,* published in French in 1955 and in English in 1962, which contains a chapter on Australia entitled, The Incredible Australian Bunyips, with information on and an illustration of, the Striped Marsupial Cat (Heuvelmans 1962). In 1962 the *Australian Journal of Zoology* published the study Mammals of Innisfail by Dr J L Harrison, which included a description of the Striped Marsupial Cat, observed crossing a road at night near Palmerton (Harrison 1962).

The Queensland National Parks and Wildlife Service published an article on the Striped Marsupial Cat in the *Wet Tropics Newspaper* 1998 describing James Cook University zoological researcher Scott Burnett studying spotted-tailed quolls on the Atherton Tablelands during the 1990s. He received information from elderly local tin miners and timber cutters concerning a cat-like animal the size of a dingo, sandy coloured, with a rounded head and small ears near rocky areas in rainforest (Woodward 1998).

All of these reported sightings are soft evidence (*sensu* Swords 1991). The difficulty of validation of such observations has been borne out by the recent evaluation of night parrot (*Pezoporus occidentalis*) sightings by the Rarities Committee of Birdlife Australia (Davis & Metcalf 2008).

In the 2014 published book *The Tasmanian Tiger: Extinct or Extant?* Dr Robert Paddle evaluates this situation when he writes "....sightings of a supposedly extinct animal, in themselves, cannot be considered as evidence for the continued existence of that species. Only evidence provided that is capable of scientific analysis, testing and experimentation can overturn a designation of extinction" (Paddle 2014 p 146).

"...it is also completely appropriate (and logical) for a scientist to take an interest in contemporary sightings of the thylacine. This is not a case of cognitive dissonance, but merely a reflection upon scientific methodology. Post 1936, claimed instances of Thylacine encounters actually involve a testing or potential disproof of the hypothesis of extinction, and the core attempt to disprove a scientific idea, equation or hypothesis lies at the very heart of scientific endeavour" (Paddle 2014 p 149).

"Records of thylacines post 1936 are undoubtedly of interest – to the scientist as well as the lay researcher. While they do not amount to evidence for the continued existence of the species – once again, nothing but a body will change that designation – nevertheless, should that evidence be forthcoming, then the information obtained from recent sightings will be seen to possess valuable distributional and behavioural data of relevance to the continued welfare of the species.....The reporting of modern Thylacine sightings is to be encouraged; and detailed records made of such incidents should be forwarded to either professional organisations, such as the Australian Rare Fauna Research Association, with its long history of existence and record keeping, and the social, legal and scientific expertise of its members; or to significant private individuals, such as Col Bailey, with a demonstrable public and private history in the handling of this information " (Paddle 2014 p 155).

Chad Arment codified cryptozoological thinking in his book *Cryptozoology: Science and Speculation,* describing it as a "targeted search methodology for zoological discovery". The researcher compares descriptions of "ethnoknowns" from written and oral tradition with known taxa to search for morphological and behavioural resemblances along with geographical locations to identify a possible match. A targeted search of the possible habitat may then be undertaken using a number of techniques (Arment 2004).

Peter Dendle in his paper Cryptozoology in the Medieval

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and Modern Worlds places cryptozoology within a broad historical context and states; "The point of this paper is not to disparage the important work of responsible cryptozoologists nor to imply that there is no legitimate place for cryptozoology within contemporary zoology. ..No age has been without its share of hidden creatures, and confirmation of purported species has been a vital and consciously debated issue among the collectors of human knowledge for thousands of years. ...The belief structures of the ancient world were not different in kind from our own, such that the study of ancient monsters is folklore/mythology while that of contemporary cryptids is methodical science, mainstream or otherwise. There is undoubtedly a continuum behind the psychological need for folkloric monsters running from the ancient to the modern world. ... The psychological significance of cryptozoology in the modern world has new facets, however: it now serves to channel guilt over the decimation of species and destruction of the natural habitat; to recapture a sense of mysticism and danger in a world now perceived as fully charted and over-explored; and to articulate resentment of and defiance against a scientific community" (Dendle 2006).

In an attempt to determine if the cryptozoological reports that I was receiving had a psychological element, as expressed by Dendle (2006), I decided to self-publish a book entitled *Australian Cryptozoology* (Opit 2008). This was enlarged and revised in 2009 and then eventually offered for sale as an EBook and set up a webpage at garyopit.com (Opit 2009). The book and the website were not advertised and it was only mentioned to eyewitnesses or amateur zoological researchers, usually themselves eyewitnesses, to further determine if a psychological element was behind these reports.

These books included all the reports that I had recorded and particularly the detailed notes and pencil drawings of the gorilla-like animals presented to me by Ms. Pixie Byrnes who claimed that she had been attempting to study these animals in the wild state in north-eastern New South Wales and south-eastern Queensland. There is no evidence in the fossil or sub fossil record of a gorilla-like animal having ever lived on this continent and it is natural to assume that it is extremely unlikely that any large mammal could possibly survive without scientific knowledge of its existence. I therefore theorised that reports of such animals would have a psychological element and a positive feedback would encourage this.

I handed out these books or sold them at cost to see what feedback was received. If a psychological element was primarily involved I would expect to receive further reports from those people that had claimed encounters. I would expect to receive more stories with ever increasing contact with these mythical animals. This would be relatively harmless to all involved because I enjoy their stories and have no desire to contradict them or to brand them as hoaxers. If they need to have someone to record their stories I am happy to provide that service. Folklorist Peter Dendle wrote that cryptozoology is "more important now than ever" because many people need to "repopulate liminal space with potentially undiscovered creatures that have resisted human devastation" (Dendle 2006).

I don't really mind if people are using me to articulate resentment of and defiance against the scientific community, as Dendle theorises, by presenting false data. Neither do I mind if people are using me to recapture a sense of mysticism and danger in a world now perceived as fully charted and over-explored, as Dendle also theorises. My only involvement is as a public broadcaster entertaining and enlightening people about the natural environment and receiving their stories. I encourage them to look at the animals that surround them and to communicate their experiences.

With stories of Yeti and Bigfoot encounters in the northern hemisphere, wildlife documentaries featuring big cats and stories of searches for the extinct Tasmanian tiger, it is possible that some people may interpret the vocalising of koalas, yellow-bellied gliders or owls and the movement of swamp wallaby in thick vegetation as evidence for the reality of an encounter with something much more mysterious. However, no feedback from my book was ever received that could be interpreted as having a psychological element involved and witnesses did not report increasing contacts with these animals. I found no evidence of resentment or defiance against the scientific community or the authorities in general nor did I find that witnesses desired to recapture a sense of mysticism and danger.

They had simply had an unexpected close encounter with an animal. They had been able to view this animal for a period of time, long enough for them to decide, that it was something that they had not expected to encounter. Most people continued on with their lives after the encounter with little effect, beyond the feeling of mild satisfaction that they had seen something unusual. A few people were more affected by their encounter and attempted to investigate further, very few putting much effort into such investigation and all continued on with their lives as usual.

An important question to be asked when examining anecdotal reports is the reliability of the memory of the witness. Research on eyewitness reliability has been undertaken by cognitive and social psychologists, providing the only source of empirical data on eyewitness identification. Such researchers have consistently articulated concerns about the accuracy of eyewitness identification. Studies using a witness viewing a line-up of people, similar to police procedures, have revealed that there is little evidence that intelligence is related to eyewitness identification performance.

The studies found that faces that are highly attractive or highly unattractive are easier to recognize than are faces that are average in attractiveness and that distinctive

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Figure 1. Ray Harvey has sent me many photographs of wildlife, using automatic trail cameras, asking for species identication. This blurred, striped animal, in bushland south of Brisbane, walking through dappled sunlight, could be regarded as thylacine-like. Research may need to be undertaken to determine which way the animal was walking. This would be to identify if the head is on the right of the photo close to the lens, and consequently blurred, with very thylacine-like stripes on the rump to the left of the photo. Conversely, the animal may have been moving from the right to the left with the stripes evident on the neck and above the forequarters, which is not consistent with thylacine stripes. With the increasing use of camera traps by zoological researchers, both professional and amateur, the implication is that it may be an amateur that solves a cryptozoological mystery. No physical evidence for the existence of the mainland thylacine has been uncovered less than 3000 years old.

THYLACINE
SIGHTED 15·1·06 3.30 AM 400 MTS NORTH OF UNCLE TOMS GARAGE ON THE GULGAN RD EVERITS CREEK
MICHAEL STUBBS & FABIOLA OLIVER.
GOLDEN EYES
BIG ROUNDED EARS SET WIDE APART ON HEAD
NO DEFINITE STRIPES
DARK OVER-TONE TO COAT FROM MIDDLE OF BACK THROUGH TO REAR OF HIPS.
GENERAL COAT COLOUR LIGHT GOLDEN BROWN WITH DARK OVER TONES CONSISTANT WITH THAT OF A AFRICAN LION
BLACK & WHITE SINGLE BANDS AT TIP OF TAIL
VERY LONG EVEN BODY & TAIL IN COMPARISON TO LENGTH OF LEGS.

Figure 2. A Thylacine-like animal drawn by witness Michael Stubbs immediately after he and his wife observed it from one to two metres away on 16 January 2006 at three-thirty am on Gulgan Road Mullumbimby.

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Figure 3. This Red-necked Wallaby (*Macropus rufogriseus*) carcass was found on Shaun McIntyre's property on Byrill Creek Road, Mount Warning on 1st July 2013. The predator had eaten the internal organs, leaving the stomach lying detached on the grass. On seeing the carcass, neighbour Warwick Woodford recalled that he and his family had observed on several occasions while driving home late at night, two different individuals of a dog-like striped unidentifiable animal. Photographed by Shaun McIntyre

faces are much more likely to be accurately recognized than non-distinctive faces. The age of the eyewitness has been consistently linked to eyewitness identification performance with very young children and the elderly performing poorly. It was also found that those who made their decision in less than 10–12 seconds were nearly 90% accurate in their identifications whereas those taking longer were approximately 50% correct. Consequently, faster identifications are more likely to be accurate than are slower identifications (Wells and Olson 2003).

Because all of the descriptions received were of distinctive animals with distinctive faces and bodies and the ages of the eyewitnesses ranged between younger and older adults, it would be expected that the reliability of their memories would be good. The encounters generally took place when the eyewitness was in a relatively heightened state of awareness, usually driving, riding or walking along winding country roads, along tracks through bushland or across their farming property. These eyewitnesses generally appear to have made their decision that they had observed something worth remembering within a short period of time and then continued on with their normal working or recreational pursuits. Perhaps we can regard their ability to recognize a distinctive animal and their memory of it as nearly 90% accurate as Wells and Olson suggest.

Thylacine-like animal

Over 18 year of radio broadcasting, the largest number of descriptions of any animal species that I received where of an unidentifiable thylacine-like animal, of which there were 53 reports. After receiving detailed descriptions of these animals from listeners, I would ask if they were sure that they were not looking at a skinny dog with its rib cage obvious and appearing as stripes or were sure that the animal was not a fox. They invariably replied, "No, these are not foxes. We're farmers. We shoot foxes. We are foxhunters. I breed dogs. These are not dogs. This is some sort of animal that we can't identify," (Opit 2008). I would always ask them to take photographs of the animal if the opportunity arose and to photograph the location and to illustrate for me what they believed that they had observed. Some of the witnesses observed the animals while walking nearby though the majority of witnesses were driving vehicles.

The descriptions of the thylacine-like animals had an enormous amount of variety in their colour concerning the striping of the rumps that ranged from dark brown to pale brown and hardly visible. One particular report was of two animals seen at different times, a darker, thickly furred smaller animal and a paler, thinly furred larger animal. All of the reports included similar details of body shape, particularly the kangaroo-like rump and tail.

Reports of behaviour were consistently unlike that of dogs and foxes, both species also having often been observed by the same eyewitness. The thylacine-like animals were constantly reported to be slower at reacting to the eyewitness as if unfamiliar with cars and lights before continuing in its original direction. Dogs and foxes were reported to spend less time looking towards the eyewitnesses' car lights and more inclined to panic, to change their original direction and to run up the road in an attempt to escape. Two different reports were received of three smaller young animals following the adult and all of them were striped just like the parents. One report was received of two young animals the size of bandicoots, but with thylacine morphology, resting in a den in the hollowed-out base of a tree (Opit 2008).

The most detailed report of a thylacine-like animal that included a witness educated in animal husbandry and who had clear visibility at close range over an extended time period was that which was reported on 30 December 2008 by Kim Falconer. On that day at 6:15 am in her unfenced backyard adjacent bushland of the Arakwal National Park near Broken Head Road, Byron Bay, Kim Falconer observed an unusual animal and wrote; "I heard a loud sound like a cross between a guttural possum noise and a large dog retching. I ran outside to find my cat facing off with a dog-like creature four times its size. I've been a vet nurse for 20 years. It was not a dog. I was two to three metres from it for several minutes.

It weighed about 18 kg, had fawn-coloured short dense fur and smelled of musk, like a mild possum odour. The animal's face was like a dingo or dog but with rounder ears. The body language of this animal was not canine and the eyes were very keen, watching in a way domestic dogs do not. It walked, trotted and loped. It was not afraid of me but backed away whenever I approached

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closer than two to three metres.

It appeared to be a female and had a springy rocking-horse gait, moving quickly then holding very still, lifting her head. She didn't take her eyes off of me. She seemed extremely curious and cautious, with no familiar dog body language.

The coat was like a newly-sheared sheep in look, short, uniform length, fawn to light brown, and very dense, not laying flat like a dog, cat or horse coat. It had a hint of black on the legs and the ears with a white muzzle, like you might see on an elderly dog, and a black nose. She was in good condition, no ribs showing. The impression was healthy and lean. Her neck was long and the entire body was lithe, it was long in the flank.

The tail was the least dog-like feature, very stiff like a broom handle, thick at the base, with short fur, and it didn't act like a dog's tail. It didn't taper, or wag. It was the vocalization that really threw me. It was not a dog sound she made, nothing like it. More like a retching possum and it was surprisingly loud. The hocks were pronounced and low, it rocked back on them when it loped away. There's no doubt in my mind it was a thylacine" (Kim Falconer pers. comm. 2009 in Opit 2009).

Thylacines have existed on the Australian continent since the Oligocene with several genera of long-extinct taxa (Long *et al.* 2002). The most recent species of thylacine, *Thylacinus cyanocephalus*, co-existed with humans for 55,000 years until it disappeared from the fossil record (Paddle 2000). The most recent mainland fossil remains of thylacines are dated to about 3090 years ago (Archer 1974). This is generally believed to have occurred due to competition from the introduction of the dingo, Canis dingo, around that time (Flannery 1994). However, Paddle, does not agree with this assumption and states "There is little evidence that the European introduction of dogs into Tasmania was a direct factor in the thylacine's extinction" (Paddle 2000). Consequently he believes that competition with dogs is unlikely to have exterminated it across the mainland and states: "The indigenous carnivores were destroyed through direct competition with humans for a finite food resource… Ecological contingencies exterminated the thylacine in New Guinea and the Australian mainland" (Paddle 2000).

It could be argued that an explanation for the many

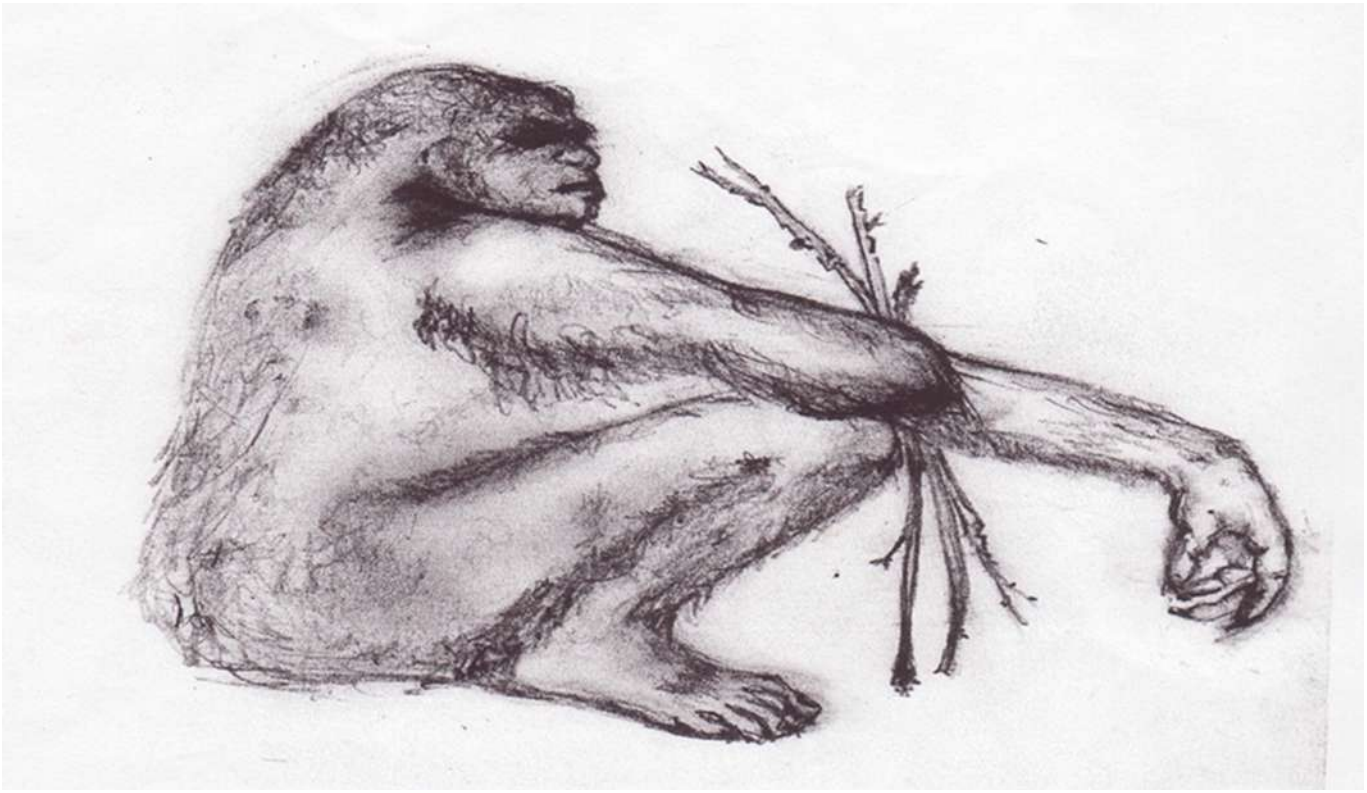

Figure 4. This is the first published illustration, drawn from life, of the cryptozoological animal, the Australian Gorilla, Doolagarl or Yowie. Pixie Byrnes drew this gorilla-like animal immediately after encountering it in Tweed Shire at 11.30 a.m. on 10 March 2008 less than 25 meters away. Like Diane Fossey studying gorillas and Jane Goodall studying chimpanzees, Pixie Byrnes has been attempting to study this species, having spent very long periods of time in its natural habitat and generally obtaining only brief observations of this exceedingly cryptic animal. Pixie named this individual Humpty, one of three males observed on rare occasions, and he appeared to purposely squat in front of Pixie before moving off. It is possible that female researchers may have greater opportunities to study these animals because they may feel less threatened then by a male researcher. Apparently co-existing with Aboriginal people for thousands of years, as claimed by the first Australians, Doolagarls may recognize that male humans are dangerous hunters while female humans are non-aggressive.

There is no physical evidence for the existence of this animal

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sighting reports of thylacine-like animals is that they are thylacines and due to their ancient genetic diversity and adaptation to an array of habitats, that may have enabled the species to survive in localities remote from direct competition with humans, such as steep forested escarpments, with minimal numbers of individuals very thinly spread across large foraging territories quietly hunting small prey species. This explanation does not explain the complete lack of physical evidence that would be expected to be encountered if the mainland thylacine has survived to the present.

Gorilla-like animal

I have received 20 reports of a gorilla-like animal. A general description of this animal, based on several detailed descriptions given to me, is that it is a 185 centimetres tall, brown to black, shaggy-haired animal that is both quadrupedal and bipedal with a rolling gate. It weighs 127 kg, has dark skin on the face with deep skin folds, light facial hair, large brown eyes, big cheek bones, big teeth and the head has a sagittal crest. It can run at a very fast speed and makes loud thumps with its feet. Mostly solitary, it stands behind trees and vocalises with a gruff roar, a screaming shriek, loud grunts and woops (Opit 2008, 2009).

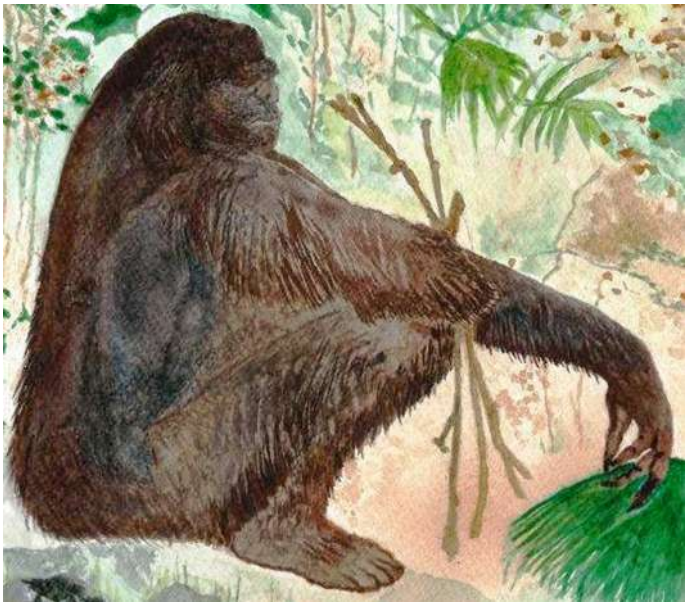

Figure 5. This is the first published coloured illustration of the cryptozoological animal, the Australian Gorilla, named by Charles Harper, who published a detailed description of the animal in the *Sydney Sun* on 10 November 1912. Harper claimed to have encountered the animal while surveying with his associates in the Currickbilly Range, south-eastern New South Wales. Aboriginal people claim that they have always been well acquainted with this species and that the male is known as a Doolagarl and the female is known as a Mahleemas. This painting of the Australian Gorilla by Diane Smith is based on the drawing by Pixie Byrnes. There is no physical evidence for the existence of this animal.

Pixie Byrnes contacted me on 25 June 2008 with detailed written descriptions and illustrations of a gorilla-like animal that she claimed that she had viewed at close range in daylight in Tweed Shire north-east New South Wales on 10 March 2008. I visited the location of her claimed encounter and photographed her at the site. Pixie wrote that she "sat in a covered spot that looked down into the gully and at around 11.30 a.m. I heard twigs snapping and other sounds of movement from the gully and I spotted out of the corner of my eye a very large animal that had sat itself down to the left of my position less than 25 meters below me. It was sitting in a small grassy patch with its knees up and it was holding three long sticks in its right hand.

Its face was full and was set up directly over its hair-covered chest. It either had no hair on its face or if there was, it was very fine hair around the nose and cheek. Its skin looked dark brown, it had a brow line overhang and its eyes were tucked under in shadow. The nose sloped

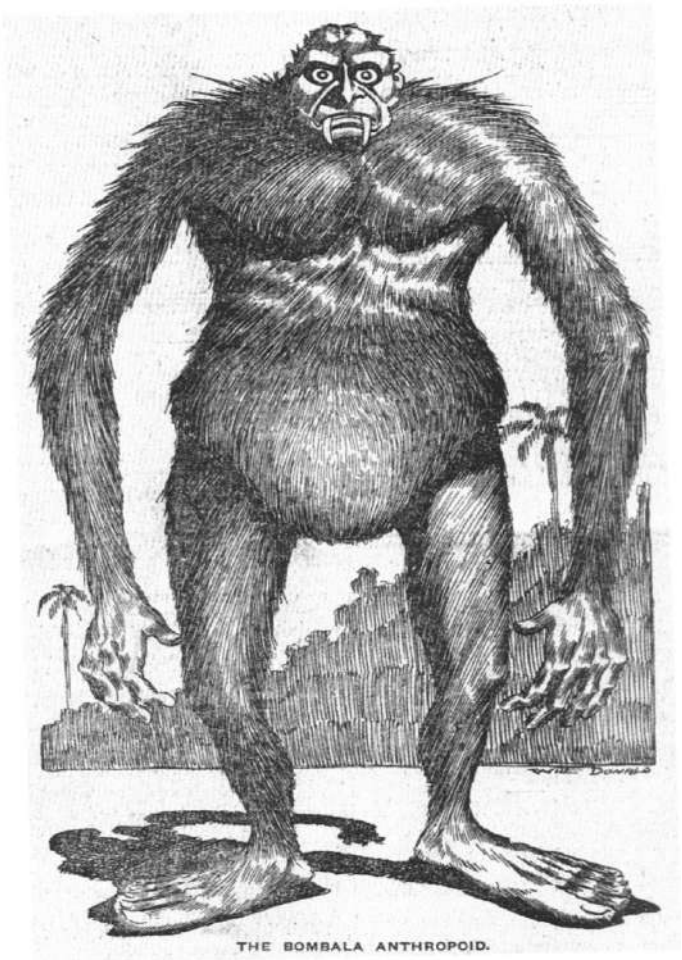

Figure 6. This is the first published illustration of the cryptozoological animal, the Australian Gorilla, named by Charles Harper. Published in the *Sydney Sun,* 10 November 1912 and entitled the Bombala Anthropoid, it was drawn by Will Donald, from the description by Surveyor Charles Harper, who encountered it in the Currickbilly Range when it approached his camp fire at night moving erect and then retreated at a faster gait on all fours.

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down a little then folded back upwards into the nostrils. I couldn't see under its mouth but it had hair running down beside its eye in front of its ear, down to the middle of the cheek and the back of the jaw.

Its coat was charcoal black in colour. It rested both arms over its knees. I could see the right elbow resting on its right knee, the left hand was out-stretched and the right hand holding the sticks was turned into it towards its chest. I could only see the left hand and noticed that its strong muscular fingers were long and solid with short clawed fingernails.

The hair on the forearm from the wrist was twisted and mattered and tapered off towards the elbow. The hair was long at the back of the elbow and under the shoulder area. I could see insects under the arm that appeared to be tiny moths, perhaps a species adapted to living within its hair. Its thigh was a lot longer than below its knee. The hair along its lower leg was mattered and shorter than the thigh hair. The feet looked to be like a man's foot but wider with a higher bridge. There was hair along the front of the foot and it was full of burs and muck. I sketched him immediately after my observation (see Figure 4.) He weighed approximately 145 kg and stood two metres tall and measured 1.2 m across the shoulders" (Byrnes 2008 in Opit 2008).

On receiving this remarkably detailed description and a very well executed illustration, I was reminded of another detailed description of a similar animal described in the Lismore *Northern Star* newspaper of 15 August 1977. Journalist G. Buchanan published a photo of a footprint with the associated story of Jean Maloney and her husband who claimed to have had a very close encounter with such an animal within the small town of Woodenbong in northern New South Wales at 2.30 am on 10 August 1977. She had switched on the spotlight as she went out the back door and came face to face, 2 metres away, with what looked more like a prehistoric person then an ape. Neanderthal-like, it was covered in grey to brown skin, particularly noticeable on its wide chest and the tummy, which was covered in thin fine hair. It stood 1.8m tall, with wide shoulders, a slim body, and powerful short legs and long slender arms that reached to the knees. Long ginger-coloured hair hung from its head, arms and legs while the body was covered in short brown hair.

Figure 7. Painting by Barry Olive of the gorilla-like animal from the article 'The Great Yowie Hunt' by Greg Hunter, published in *Penthouse* magazine in 1983. Eyes were added by Tony Healy.

Figure 8. On the 27th October 2003 the author examined approximately 500 Green Wattle *Acacia irrorata* in the Jimna State Forest adjacent the Conondale National Park in South-east Queensland that had evidence of an animal preying on the wood-boring larvae of longicorn beetles using only what appeared to be finger or thumb-nails with no sign of beak or teeth marks. This digital photo was taken by Nigel Francis.

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Figure 9. Enigmatic stick tripod and footprints in the mud of a wheel rut photographed by the author on 12 September 2008 on a National Parks and Wildlife Service gated section of Jones Road between the Billinudgel Nature Reserve and Tullawonga Wildlife Refuge. Three lumps of mud had been scooped out of the rut and thrown onto the ground. Small child-like footprints for 3 metres were visible along the rut and on two of the lumps of mud that had been scooped out & thrown down. This showed lots of activity of little feet walking back & forth along the rut pushing mud onto previous footprints. No additional similar prints were visible anywhere else along the muddy track.

Figure 10. Footprints in the mud of a wheel rut photographed by the author on 12 September 2008 on a National Parks and Wildlife Service gated section of Jones Road between the Billinudgel Nature Reserve and Tullawonga Wildlife Refuge.

It had a small head and a short neck with very large dark brown eyes, a fringe of hair over the eyes, a distinctive small broad nose, very large nostrils, pronounced eye-brow ridges, a large mouth and no chin. It had a large 9 inch long penis that resembled an uncircumcised man and a human-like scrotum. It had a distinctive odour and it made very loud deep grunting noises before it bent forward and ran off with a different movement to a person, hunched over with its long arms swinging strongly. It left 22cm by 11cm footprints with five toes of roughly equal size (Buchanan 1977 and in Opit 2009)

The only other very detailed description that I received of this animal was in emails from Paul Cropper, Tony Healy and Dean Harrison regarding Mr Jason Cole, who had contacted them after claiming an encounter with an unexpected and unidentifiable animal. Jason Cole claimed that he was working on a forested plateau at Ormeau south-east Queensland in April 2003, when he had an encounter with this animal. He stated in his communications; "I stopped what I was doing and my attention was focused on this really ugly looking thing with hair all over its body… It looked like a really ugly human with dark brown hair all over it. The only place it didn't have any hair was around its eyes and nose. The face was not like a monkey or ape, but more like a really ugly man… But this thing didn't act nor look human. The forehead was wide and flat and also protruding, more than a normal human's forehead. The eyes were big, but deep and the nose was flattened. The hair around its face was three inches long and the skin was a dark pigment dirtied with mud… I knew this thing wasn't human after it stood up, and if I was to put its face in a category, I would say it resembled a Neanderthal man… I'm estimating that it weighed 3 times my body weight with its arms reaching down to the knees and it was running in a side to side motion. The speed of this animal was mind blowing to me and its legs moved in a very un-human way" (Jason Cole in Opit 2009).

On 25 May 2002, Max Harrison told me of his experiences with this animal, when as a boy; he was taken on the Bombala to Bega Doolagarl Dreaming Trail in south-eastern NSW by his grandfather, who lit fires in the four directions of the wind each night around the camp while travelling on foot through the wilderness. This was to discourage male Doolagarl and female Mahleemas from entering their camp while they were asleep. No fish or meat could be eaten at night as the odour would attract the attention of the Doolagarls and Mahleemas as one camped within their habitat. If a Doolagarl was observed during the Doolagarl Dreaming Trail walk then it was necessary for the boy to go through the tribal initiation or law, and they did indeed encounter one of these gorilla-like animals. (Max Harrison pers. comm. 2002 in Opit 2009).

Melanie Leontine reported to me in 2013 that while growing up on the family farm in the 1970s in central New South Wales she often interacted with a small Aboriginal family who worked on the property directly adjacent a vast wilderness area and who lived in simple bush dwellings near the creek. Another family of very primitive people also dwelt on the property but these people did not build any kind of shelter. These people were covered in dense black hair, were taller and more solidly built than the Aboriginal people and they were usually observed sitting around on the ground, chewing on seeds and other bush tucker. The face and feet of these people were free

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Figure 11. Close up of footprints in the mud of a wheel rut photographed by the author on 12 September 2008 on a National Parks and Wildlife Service gated section of Jones Road between the Billinudgel Nature Reserve and Tullawonga Wildlife Refuge.

Figure 12. Close up of prints in the mud of a wheel rut photographed by the author on 12 September 2008 on a National Parks and Wildlife Service gated section of Jones Road between the Billinudgel Nature Reserve and Tullawonga Wildlife Refuge.

of the thick hair that covered the rest of the body. The Aboriginal people referred to these primitive hairy people as 'Bunyips' & her dad called them 'Bigfoot'.

About once a month she would ride her horse with her dad to the camps where the primitive people and Aboriginal people lived, the camps of both groups were separate and some distance apart and both consisted of a couple of families of four or five individuals. Melanie and her father could look down towards the camp of the primitive people and listen to them using their grunting language. It sounded very different and very simple compared to the language of the Aboriginal people. She was a little afraid and never got too close to the primitive people and regarded them as a kind of big monkey. She once watched from a distance as her dad gave an old horse blanket to the primitive people and they tore it to pieces and wrapped it around what she surmised was a baby.

When she was older she would ride with her siblings and chase kangaroos, emus and the cattle. As they became more daring they would also ride into the camps of the primitive people and chase them as well. Both males and females would run off very rapidly squealing loudly. Her father had told her that before she was born the forestry workers, logging timber in an adjacent reserve, would become very upset and complain to him when on rare occasions a large male member of the primitive family would purposely run right through their camp, apparently trying to scare forestry workers away (Melanie Leontine pers. comm. 2013).

The only scientist to have written a paper on the gorilla-like animal was Colin P. Groves in the Department of Anthropology at the Australian National University with his article, The Yahoo, The Yowie, and Reports of Australian Hairy Bipeds, published in *Cryptozoology,* the interdisciplinary journal of the International Society of Cryptozoology. This article concludes that "a giant marsupial, such as a wombat, may have survived the megafaunal extinctions, giving rise to the wild man reports" (Groves 1985).

There is a fossil of a species of giant marsupial that could possibly give rise to the wild man reports and that is *Hulitherium thomasettii*, a late Pleistocene diprotodontid described by Flannery and Plane (1986) from Pureni, Southern Highlands Province in Papua New Guinea. Flannery describes the animal in *The Antipodean Ark*, "The only known skeleton of the Mountain Diprotodontid shows that it also had highly mobile limbs, a most unusual feature for a member of the family Diprotodontidae….possessing a short muzzle and a highly domed forehead" (Hand and Archer 1987).

In Volume 6 of *Cryptozoology* in Comments and Responses under the title of Noise, Signal and Evidence (Response to Bayanov and Joyner), Colin P. Groves states: "In assessing cryptozoological reports, one should try to look through the "noise" and see if there is any "signal" behind it. By "signal," I mean consistency…I admit freely to Joyner that I have tried to "explain away" the reports. It is important to try to do so; if they cannot be explained away, then what we are faced with is Evidence; and, as I suggested above, the best real evidence is consistency" (Groves 1987).

Malcolm Smith's article, Analysis of the Australian "Hairy Man" (Yahoo) Data in volume 8 of *Cryptozoology* did attempt to explain these reports as encounters with isolated Aboriginal males (Smith 1989) and one could attempt to explain recent reports as sightings of wild naked hairy humans. Since Groves wrote in 1987 that if the reports cannot be explained away we are faced

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Figure 13. Joshua Clark drew a picture of the animal that he and his mother had observed at 2pm on 23 March 1996 in Upper Main Arm, northern New South Wales, on a steep slope in dry eucalypt forest. They observed what they took to be a child running down the slope thickly covered in kangaroo grass and scattered shrubs beneath a eucalypt canopy. It was bent slightly forward, as is normal in a person running down a hill, until it saw them and stopped ten metres away. Although it was shaped somewhat like a child approximately 1.25 metres tall, it was covered in thick black hair except for the face that was covered in dark skin. From a bipedal position it dropped down to move off slowly knuckle walking as a quadruped similar to a chimpanzee, then as it gathered speed it stood erect and ran off down the hill.

with evidence and the best real evidence is consistency, detailed descriptions of the animal continue to be reported and these reports and descriptions of morphology and behaviour are consistent.

The anecdotal reports appear to imply that either, the late Pleistocene diprotodontid *Hulitherium thomasettii,* or an unknown species related to it, has survived or, that a second species of hominid had reached this continent and may represent a surviving population of a species currently known only from fossil evidence. An explanation for the recent reports of this animal could include the possibility that the numbers of individuals could be increasing from a much reduced remnant population. If it is a living fossil hominid, neither tool nor fire-using, that obtains its protein from animal prey, a reduction in competition for its prey with the removal of Aboriginal and then European hunters from their habitats, with the creation of national parks, could be considered. This explanation does not explain the complete lack of physical evidence that would be expected to be encountered if the gorilla-like animal had existed on this continent in the past and has survived to the present.

Chimpanzee-like animal

I received four reports of an unidentifiable chimpanzee-like animal that from one description is both bipedal and quadrupedal. A recently discovered second species of human, the Hobbit, *Homo floresiensis* was found as fossils ranging in dates from 95,000 to 13,000 years old in a cave on Flores, a large island in the eastern Indonesian archipelago. Only a metre high, weighing 25 kg and with a brain smaller than a chimpanzee, this species is generally believed to be a pygmy form of *Homo erectus* (Brown *et al* 2004).

Dr Henry Gee, senior editor of *Nature,* wrote "The discovery that Homo floresiensis survived until so very recently, in geological terms, makes it more likely that stories of other mythical, human-like creatures such as yetis are founded on grains of truth. In the light of the Flores skeleton, a recent initiative to scour central Sumatra for 'orang pendek' can be viewed in a more serious light. This small, hairy, manlike creature has hitherto been known only from Malay folklore, a debatable strand of hair and a footprint. Now, cryptozoology, the study of such fabulous creatures, can come in from the cold. Another argument in favour of such searches comes from the recent discovery of several new species of large mammal, notably in Southeast Asia" (Gee 2004).

There is no fossil evidence of this species on the Australian continent though in the permanent Aboriginal cultural exhibition at the Australian Museum in Sydney, a recording has played repeatedly to visitors from at least September 2001 and still happening in 2014, of an elder speaking of their experiences with one metre high hair-covered people (Opit 2008). There are a number of Aboriginal names for these small hair-covered people including *Dinderi,*

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junjadee, junjuddis, nimbinja, nimbunj, njimbin and nimminge, depending on their language group, and, since European settlement, *brown jacks* (Healy and Cropper 2006).

Kumbaingeri elder, Henry Buchanan, of Nambucca Heads, north-eastern NSW, informed *Macleay Argus* correspondent, Sue Horton in 1976 that "The Hairy Man is just a little mite, like a little monkey. They call him the little brown jack", and claimed that he had seen one (Healy and Cropper 2006).

Mark Pope of Bex Hill, north-eastern New South Wales, described an encounter while driving down to Tooloom along the Mount Lindsey Highway at daybreak in mid 1979 and stated "If I had to say it looked like anything, I'd say a chimpanzee. As to whether it was a chimp, I'd say no, but something in the same line; it was covered in hair, dark brown or black. Its face seemed fairly flat. It wasn't very big: about the height of a guidepost. It was standing on two legs leaning forward. One of its legs was down the bank and straight, the other was further up. One arm was down on its forward leg or on the ground. Its head was turned towards me, shoulders slightly towards me. When it decided to move, it took off in a hell of a hurry and used arms, legs and everything to claw its way up the bank- and then it was gone" (Healy and Cropper, 2006).

Lynn Clark and her 12-year-old son Joshua described to me their observation of a chimpanzee-like animal half an hour after their encounter at 2pm on 23 March 1996 in Upper Main Arm, Byron Shire, New South Wales, in dry eucalypt forest. They observed what they took to be a child running towards them down a steep slope thickly covered in kangaroo grass and scattered shrubs beneath a eucalypt canopy. It was bent slightly forward, as is normal in a person running down a hill, until it saw them and stopped ten metres away. Although it was shaped somewhat like a child approximately 1.25 metres tall, it was covered in thick black hair except for the face that was covered in dark skin. From a bipedal position it dropped down to move off slowly knuckle walking as a quadruped similar to a chimpanzee, then as it gathered speed it stood erect and ran off down the hill (Lynn Clark pers. Comm. 1996 in Opit 2008). Joshua Clark drew a picture of the animal that he and his mother had observed (see Figure 13).

Max Harrison told me that he saw two of the little hairy people watching him on Mumbulla Mountain south-eastern New South Wales. He had undertaken the Doolagarl Dreaming Trail walk with his grandfather and had gone through the tribal initiation's first blood-letting ceremony, in which his body was covered in blood and ochre, and which was then washed off in a sacred waterhole, from where it flowed down the Murrah River to become, it was believed, the little hairy people (Max Harrison pers. comm. 2002 in Opit 2008).

Colin Isaacs, who grew up on the La Perouse Aboriginal reserve, stated that two species of primate-like animal were very well known to his people and that the elders always stated that they were held to be very sacred and not to be talked about with outsiders. The larger species was known as a Doolagarl and the smaller species was known as a Yowie. Pigeon House Mountain or Didthul in Morton National Park at Yadboro, inland from Ulladulla, is a sacred place for both species and that the landscape surrounding it was created by Doolagarls and yowies wrestling one another competing over territory during the Dream Time (Colin Isaacs in a recorded interview with Paul Cropper in 2005).

Les Holland of north-eastern Queensland informed me on 11 August 1999 that the little hairy men were often observed by loggers in the Kirrima Range behind Tully (Les Holland per comm. 1999 in Opit 2008).

Kyle and Kaleb Slabb are members of the Goodjingburra, a subgroup of the Bundjalung, and they live on a portion of their ancestral lands at Leticia Peninsula at Fingal south of Tweed Heads. The Goodjingburra people have always known about and had an amicable relationship with the hairy people. Several members of Kyle's parents' and grandparents' generation have spoken about encounters with them and Kyle's grandmother once observed a juvenile accompanied by its very protective mother. Kyle's father recalled seeing a hairy man running with a stick in his hand in 1959 or 1960, his uncle had seen one and he and his friends had unexpectedly walked right up to one, sitting beside a track at dusk in 1991, when Kyle was 16 years old. Although Kyle had heard the stories he had never seen one. They had a good look before they ran off in fright.

Kyle Slabb told Healy and Cropper that "I walked right up to him, right up to his feet – just one or two feet away. He was just sitting there, holding on to his knees. It wouldn't register – what I was looking at – until he looked up at me. He looked straight at me and I was frozen. The expression was really, just *blank* – blank as you could get – completely blank. There were a couple of other fellows with me, just looking at him and I was speechless.... He was like a mixture. A darkish brown colour. It looked like a human face, but with long hair on every part except for around his eyes. He had pretty much just brown eyes; his jaw was small but stuck out more than a human's ... the mouth looked very monkey-like ... his forehead was prominent, and the cheekbones ... my first thought was 'it was a gorilla or a monkey or something', but when it looked up it looked more human than anything ... they are not a spirit, you can touch them like you can touch a man." There was no hostility or other emotions evident on the face (Healy and Cropper 2006).

I spoke with Kaleb Slabb and his workmate, both New South Wales National Parks rangers and they informed me that a little hairy man, about a metre high, looking a

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Figure 14. Melbourne Museum biologist Rory O'Brien and Melbourne University's Kate Charlton carried out a DNA sequence that determined that this panther-sized black cat shot by Mr. Kurt Engels at Sale in Victoria in May 2005 was a domestic cat. Weighing approximately 30kg and measuring approximately 175cm from nose to tail-tip it provides evidence that we have panther-sized feral cats in Australia.

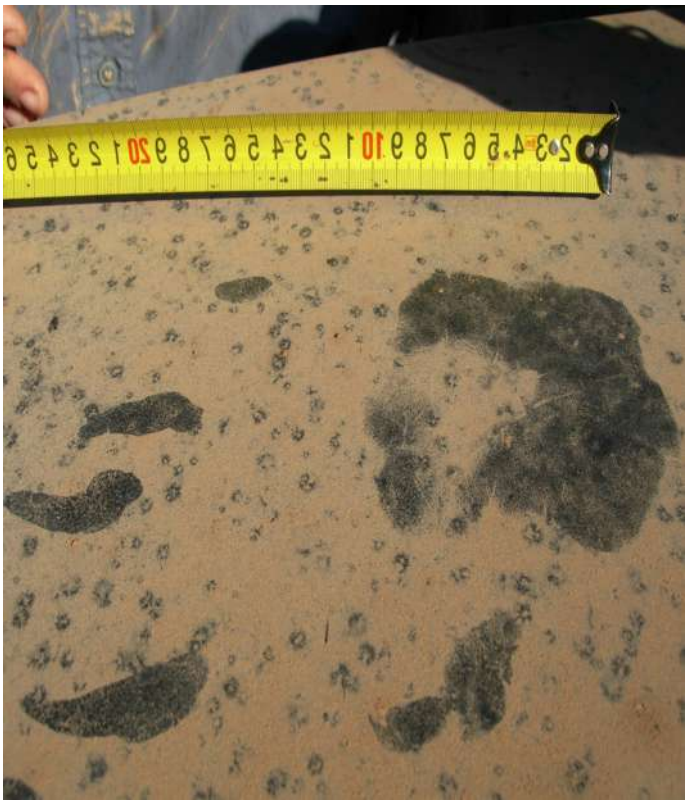

Figure 15. This photograph, sent to me by Dean Harrison, of the print of what may be the hand of the gorilla-like animal, was found by a honey farmer at Gayndah in South-east Queensland in 2005. Several of the prints were photographed in the dust on a farm vehicle. Photographs of footprints and handprints of the gorilla-like animal can be viewed at http://www.yowiehunters.com.au/index.php/footprints. There is always the possibility that prints in mud could have been created by hoaxers if they do not exhibit dermal ridges. These prints in the dust may offer research possibilities because they appear to exhibit skin surface features.

little like a bipedal chimpanzee, had walked across a track in front of the rangers in the Nightcap National Park while they were repairing walking tracks in 2013. Kyle and Kaleb Slabb and family had last encountered one of the hairy people adjacent Letitia Road, Fingal, in 1999 (Kaleb Slabb pers. Comm. 2013).

On 12 September 2008 while walking along Jones Road adjacent the Billinudgel Nature Reserve I found a small stick tripod-like structure with little footprints in the mud of a wheel rut. Three lumps of mud had been scooped out of the rut and thrown onto the ground. Small child-like footprints for 3 metres were visible along the rut and on the two lumps of mud that had been scooped out and thrown down. This showed lots of activity of little feet walking back and forth along the rut pushing mud onto previous footprints.

At first I naturally took this to be the result of a family with children playing but then could find no human footprints along the bare muddy track which held the prints of swamp wallaby *Wallabia bicolor*, bandicoots *Isoodon macrourus* and *Perameles nasuta* and wonga pigeons *Leucosarcia melanoleuca*. It was as if whoever it was who left the tracks had approached and left the site by moving through dense vegetation.

Directly adjacent the footprint-covered muddy wheel rut was a pool of clear water surrounded by swamp grasses with easy access down a short damp soil path to wash one's hands. Yet no prints or evidence of hand washing was visible. I could not imagine kids scooping up mud and throwing it about and then not washing their hands when they walked off and after treading all through the mud in one rut were careful not to tread in any other mud along the entire track. I have walked this remote location for many years and rarely encountered anyone.

The locality is 30 km south along the coast and within similar habitat to that which Kyle Slabb and Kaleb Slabb had talked of encounters with a hairy man. I have always found it incredibly difficult to believe that there could be an unknown species of hominid living in remnant habitat amongst ever expanding humanity. However, the stick structure and footprints were so enigmatic that I thought that I had better photograph and take measurements of them just in case the impossible is indeed possible.

The small stick tripod-like structure was 290 mm high at its apex where all the sticks were resting upon each other and they extended around another 150 mm higher. One forked stick 660 mm long with a 180 mm fork rested against another four sticks ranging from 750 mm, 670 mm, 620 mm and all were about 20 mm thick.

The footprints were human-like and I measured the length of toes from a left foot and two right feet. The left foot big toe and the next two toes were 30 mm long, smallest toes were 25 and 20 mm long. Widths were 22,

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17, 13, 10 and 10 mm wide. The widest part of the foot near the toes were 80 mm across. The widest part of the heel was 50 mm and the length of the foot was 190 mm.

The right foot big toe and the next two toes were 30 mm long and the smallest toes were 25 and 20 mm long. The widths of the toes were 24, 14, 13, 11 and 11 mm wide. The widest part of the foot near the toes was 75 mm across. On another set of prints the right foot big toe and the next two toes were 30 mm long and the smallest toes were 25 and 20 mm long. Widths were 30, 30, 15, 14 and 14 wide. The widest part of the foot near the toes was 75mm across.

Footprints were 230 mm from the toes of the first foot to the heel of the second foot and there was a 430 mm distance between the heel of the first foot to the toes of the second foot. A larger set of prints that resembled a knuckle were in a patch of thrown mud and the largest was 40 mm long and 35 mm wide, next was 60 mm long and 30 mm wide, next two indentations were 40 mm long and 25 mm wide except smallest which was 17 mm long. Beside it is what looked like a hand-print with four 80 mm long fingers that were together 60 mm across (see Figures 9, 10, 11 and 12).

Black Panther-like animals

Eighteen reports of an unidentifiable black panther-like animal were received. This is an animal larger than a Labrador dog and very cat-like in its morphology and behaviour. These animals are usually described as having fur that is very glossy black. The most detailed report that I received was from Eden Woods who saw a black panther-like animal at 1pm on 4 October 2011 while walking along the abandoned railway track from Sunrise Avenue towards Byron Bay. The huge cat stood up out of the grass where it had been crouching and looked at him from only three metres away. The midday sunlight reflected off the black fur with a lustrous sheen. After watching him closely it leapt into the air in a very cat-like manner, twisted about and walked calmly away into the forest and was swooped on by two magpies (Eden Woods pers. comm. 2011).

A panther-sized black cat was shot by a deer hunter, Mr. Kurt Engels, at Sale in Victoria in May 2005. Weighing approximately 30 kg and measuring approximately 175 cm from nose to tail-tip Engels photographed it and because the head was destroyed by the bullet, cut the tail off for evidence and threw the body into the creek. The tail was examined by Melbourne Museum biologist Rory O'Brien and Melbourne University's Kate Charlton carried out a DNA sequence that determined that it was a domestic cat. (Williams and Lang 2010). It would appear from this evidence that we have panther-sized feral cats in Australia (see figure 14).

Michael Williams and Rebecca Lang, in their book, *Australian Big Cats, an Unnatural History of Panthers,* describe a number of accidents during which big cats escaped from their cages in circuses and zoos, these being reported in newspapers. Almost all were either recaptured or shot, though anecdotal reports list incidents where the animals were never recovered. There may have been many more escapes that were not reported. In 1985 Detective Tony Holmes shot a lioness at Broken Hill, NSW and it was never discovered where the animal had come from. The results of the Victorian State Government Department of Conservation and Environment analysis of hair and scat samples from Winchelsea indicated melanistic leopard (Williams and Lang 2010).

Brown Puma-like animals

Nine reports of an unidentifiable brown puma-like animal were received. In one encounter it was described as being a metre high cat with golden fur, a round cat-like head, a lion-like small mane, large thighs, large paws, long furred tail and a bounding cat-like gait (David Green pers. comm. 2006). Another report received was of two cubs that were 25 cm long snout to base of tail, 20 cm high and covered in pale fur with a few large round black spots on each side of the body. They possessed short thick legs and large paws. They were observed playing in a puddle on the road with a metre high adult watching them partly concealed within roadside vegetation (Jennifer Creed pers. comm. 2012).

Val Preston phoned to say that when he was in the navy during WWII it was common knowledge that the American military personnel kept all kinds of animals as mascots and that cougars were popular mascots, though he did not see them himself (Val Preston pers. comm. 2012). Dale O'Sullivan unveiled a stuffed puma, shot by his father at their Woodend property in the 1960s with a photo and article in the *Herald Sun Victoria*, 16 October 2005 (Healey 2005).

The *Maryborough District* Advertiser 31st March 1995 published an article on the front page that stated "Two leading Australian wildlife experts believe that there is a "high probability" that a species of great cat has become established in the forests of central Victoria... Mr Strahan, a leading mammalogist, has been supported in his view by David Pepper-Edwards, the Head Keeper of Carnivores, at Sydney's Taronga Park Zoo... Their comments followed a meeting of leading researchers at Taronga Park Zoo on December 30 last year... Senior staff at Melbourne Zoo and senior Commonwealth officials have since supported the likelihood of a population of great cats existing in Victorian forests" (Anonymous 1995).

Diprotodon-like animals

I received four reports of an unidentifiable Diprotodon-like or perhaps Palorchestes-like animal from north Queensland and three reports of a Diprotodon-like animal from north-eastern and south-eastern NSW and Victoria. Three reports came from Iron Range, Cape York Peninsula describing a quadrupedal metre tall black haired animal with a short prehensile trunk on its snout. On 12 December 2001 Barb

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Holdsworth phoned to say that a local man by the name of Harry had just told her that he saw, while walking through the rainforest near the Pascoe River, an animal that was a metre high covered with black hair and that had a small trunk for its snout (Barb Holdsworth pers. comm. 2001). Gayle Miels wrote to me from Portland Roads on 4 January 2004 to report that a friend and neighbour, Ray Stockham, told her that on several occasions he had observed a metre high herbivorous, quadrupedal, black-haired animal that had rounded shoulders and a small, short, prehensile trunk on its snout. He saw a single animal once or twice a year for five years from 1986 to 1992, always during dry weather, each time not long before the wet season began. Each time he watched it from cover as it walked down from the Goddard Hills north of the Pascoe River. He watched it use its small trunk to feed on the young shoots of hop bushes. Gayle Miels added that there had been another sighting north of the Pascoe River of the same animal by another resident of the locality who described that it was black haired, stood a metre high and that the rear of the animal resembled a wombat (Gayle Miels pers. comm. 2004).

Ray Westrap reported on 25 September 2013 that he encountered two almost cattle-sized black-haired animals with prehensile elongated noses like short trunks and thick legs, which did not resemble the thin legs of wild pigs or cattle. Ray observed them running towards him along a dry river bed near Currabeena in North Queensland. Ray was hunting wild pigs and was surprised to see animals that he could not identify and did not want to shoot them but was frightened and shot above their heads to scare them off. The two strange animals turned around and ran back up the creek making a squealing noise unlike anything that he had heard before. Years later Ray saw an illustration of a Diprotodon and thought that the animals that he saw most resembled it (Ray Westrap pers. comm. 2013).

On 3 June 1997 I received a report of a strange animal from John that he encountered while driving back from the beach through bushland on Bournda Road near Bondi Lake on the Sapphire Coast south of Tathra with his girlfriend in the late afternoon. The strange animal walked onto the road from thick vegetation on the right hand side directly in front of the car. Driving slowly on the dirt road, John almost hit the animal, forcing it to turn aside and, braking quickly, he drew right up beside it. They both had a good look at it and found that it looked most like a giant wombat covered in dark hair, but that it was taller and slimmer with longer legs and it

Figure 16. Plaster cast of the footprint of the gorilla-like animal, one of nine footprints found by Garry Maguire and Andre Clayden on Garry Maguire's property on Springbrook South-east Queensland in June 1998. Two 'bunyip skulls' (most likely eroded calf craniums) that were collected by Spencer Rolphe at Ettrick and Jeff Johnston at Dairy Flat and given to Roger Harris of Kyogle who kept them in a box for some years until the author collected them on 15 August 2013 and presented them to the Dangerous Zoology forum. The craniums were given to Suzanne Hand University of New South Wales for evaluation and identification.

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had a more mobile head, which was now directly beside his window and was level with his elbow as he held the steering wheel. John became frightened that such a strange large animal was now directly beside his open window and so he accelerated and drove off while the animal ran off into the bushes (John pers. comm. 1998).

Gabe Hart described how he encountered four bear-like or giant wombat-like animals, two adult animals followed by two smaller young animals, crossing the road in single file directly in front of him, illuminated by the headlights as he slowed at a culvert creek crossing. He was driving home along Wilsons Creek Road, near Mount Jerusalem National Park, at 11 pm on 20 December 2004. The adults were a metre long and half metre high at the back with the forelegs longer than the hind legs, covered in dark hair and with no tail visible. They were rather slow moving and what particularly interested him was that all four animals moved their hind legs forward together like a kangaroo does when it is moving on all four legs. Having always lived in the area he was surprised to see such animals (Gabe Hart pers. comm. 2005).

Figure 17. Gary Opit, wearing the Society tie, holding the plaster cast of the footprint of the gorilla-like animal and a bunyip (calf cranium) skull at the Dangerous Zoology forum at the Australian Museum 2 November 2013.

Claire contacted me from St Albans on 20 March 2013 to describe an encounter she had with a giant wombat-like animal that ran across the road just in front of her, almost exactly like a wombat would run. She was walking at 4.30 pm on a fine overcast day along Gardiners Road, Foster, Victoria, in 2001, through a patch of bushland in otherwise cleared farming country. It was the size of a sheep in height, black to very dark brown in colour with its front legs longer than its hind legs, it had no tail and a more mobile head different but somewhat similar to a wombat. Her parents were wildlife carers and had reared orphan baby wombats so she was very familiar with them and she could tell that this wasn't a wombat. She contacted me after she had seen an illustration of a Diprotodon and recognised it as exactly like the animal that she had seen (Claire pers. comm. 2013).

Tree kangaroo-like animals from North-eastern New South Wales

I received three tree kangaroo reports in north-eastern New South Wales. Tree kangaroos occur only in north-eastern Queensland and New Guinea. The first report that I received was from Phil who claimed to have observed from the verandah of his house, east of Mullumbimby near Simpson's Creek at 10.00 am in May 2007, a tree kangaroo that climbed backwards down from a tree in remnant regrowth rainforest until it was one metre above ground. It then climbed back up the tree and all of its movements were slow and deliberate. Its body was the size of a medium-sized dog covered in very dark brown fur, pale grey on the throat, neck and underparts with a very long tail of the same colour and which always hung down and was not prehensile. The shoulders were powerful, the large front paws and large, somewhat elongated hind paws all had large claws and the head was tree-kangaroo-like. Phil looked the animal up in a book on Australian mammals and said that it most resembled Bennett's tree kangaroo (Phil pers. comm. 2013).

I mentioned Phil's report on my radio show and that I had visited the locality to look at the habitat and received a phone call describing a similar animal. Geoff saw what he believed was a tree kangaroo 30 years ago in 1983 in rainforest at Jackadgery near the Mann River west of Grafton. He described it as a heavily built macropod with thick long reddish-brown hair on the body and a very long tail that hung down when perched on branches. It was jumping between branches of a strangling fig tree and then it jumped down to the ground and bounded away. He had no doubt that it was a tree kangaroo and was surprised to see such an animal. Geoff looked the animal up in a book on Australian mammals and said that it most resembled Bennett's tree kangaroo (Geoff pers. comm. 2013).

Simon emailed me after hearing my Wildlife Wednesday broadcast and the two previous reports and stated that the first ranger at Gibraltar Range NP reported that a

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macropod lived in the rainforest tree tops and that it most resembled a yellow-footed rock wallaby in colour (Simon pers. comm. 2013). It would be expected that the clearing of the subtropical rainforest of north-east New South Wales to create agricultural lands would have revealed the existence of a tree kangaroo species had such a species existed. A possible explanation for the reports is that a brush-tailed rock wallaby, which has somewhat similar fur colouring as Bennett's tree kangaroo and can climb trees, was mistaken for a tree kangaroo. It is also possible that an orphan tree kangaroo has been encountered in north-eastern Queensland, raised in captivity and released in north-eastern New South Wales.

Bunyip-like animal

I received one report of an unidentifiable animal in the form of a handwritten letter from Mr Max Gray, dated 1 May 2007 on the Macquarie River bunyip.

Mr Max Gray wrote:

> *"During the mid 1950's was the only time I didn't go with my dad on one of his many fishing trips to the Black Mountain Waterhole on the Macquarie River above Wellington and just below Burrendong Dam (before the dam was built). Dad and his mate George Edwards got the fright of their life while camped on the river bank on his brother's property 'Yarragal.' They heard a large animal crashing through the Scotch thistles, which were quite high, and bellowing. They likened it to an elephant trumpeting, the sound made the hair stand up on the back of their necks.*
>
> *The next day they saw where it had crashed through the thistles. That same day they came across a mutilated freshly killed sheep, as well as sighting a very large animal with black pig-like bristles or hair almost submerged as they motored up the waterhole below Black Mountain Waterhole. George said to dad "Look out Dave; you are going to hit something!" Dad swerved the dingy upon seeing it. However, it sank below the surface quickly enough to avoid the propeller of the small outboard motor.*
>
> *Dad's brother, Albert Gray, told them of a time when he was riding along the steep bank of the same waterhole, and he saw the same animal, and his horse threw him and bolted. Albert also told of mutilated sheep in the same area. Whether or not this Bunyip is still there I don't know. The water from Burrendong Dam is very cold as it is released through the bell tower at the base of the dam wall" (Max Gray pers. comm. 2007).*

Mole

Warren from Armidale contacted me on 15 January 2014 to talk about a small live black-furred mole-like mammal that he found in the coastal sand dunes at Coffs Harbour while on holidays in 2004. It had no eyes, a white snout and enlarged digging claws. Warren did not regard the animal as anything unusual as he had seen documentaries that included images of moles, though he was surprised to encounter one in coastal sand dunes (Warren pers comm. 2014).

Pygmy Wombat

Morris Fowler from Byrill Creek Road Uki contacted me on 3 June 1997 to talk about a small animal that he referred to as a pygmy wombat. He and his wife had regularly observed the animals over a 20 year period crossing their access road and a paddock at night. Morris described the animal standing 15cm high, covered with pale yellow-grey woolly fur, with a wombat-like head, rotund body, short legs, and a stumpy tail. They never saw more than a single individual at any one time and it was observed from their car as they returned home at night. It was always travelling intently with a waddling gait in the same direction at the same time. They did not know or concern themselves as to whether it was the same individual or different individuals. Having migrated from Scotland they did not regard the animal as anything unusual, just one of the many unique animals that they had grown accustomed to seeing on their property in their new land, including bandicoots, echidnas, possums, koalas and wallabies. Like most people, they appreciated the aesthetic value of wildlife, though their interest did not go so far as to investigate further.

A black-furred, bipedal, human-sized, primate-like animal

The only physical evidence that the author was able to examine was in response to communication with Nigel and Jeanie Francis, who contacted me to ask what kind of animal was feeding at night on wood-boring larvae. They had observed, while spotlighting at night, a black-furred, bipedal, human-sized, primate-like animal, that was squatting by the wattles and when the torch was shone upon it, it quickly walked off. It had been carefully removing pieces of wood creating precise vertical slots from the base of small wattle trees.

On the 27th October 2003 I journeyed with them to the Jimna State Forest adjacent the Conondale National Park in South-east Queensland to investigate. We examined a logged, regrowth dry eucalypt forest with a middle stratum of green wattle trees *Acacia irrorata* four to five metres in height and with a stem diameter of 10 to 20 cm at a metre above ground. I was surprised to find evidence of an animal preying on the wood-boring larvae of longicorn beetles in a manner that I had never seen before. This was quite different from damage created by yellow-tailed black cockatoos *Calyptorhynchus funereus* tearing wood-boring larvae out of the wood with their beaks or the furrows created by yellow-bellied glider *Petaurus australis*.

A careful examination showed that they were tears or rips using what appeared to be finger or thumb-nails and over 500 different examples were found over a two day

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period. All were found between half a metre and one metre above ground in Green Wattle trees. All were exactly alike and showed a sophisticated method of wood-boring larvae predation.

Every tree tear consisted of a strip of bark torn vertically down the trunk and measuring 120 to 350 mm in length and 50 to 60 mm wide. There were no claw, teeth or beak bite marks at all on the smooth soft bark. However, there were almost always a series of thin, straight indentations, 15 mm in length, vertically along one or both sides of the tree tear. Sometimes there were identical indentations directly above and below the tree tear. These appeared to be the impression of a finger or thumb-nail and it appeared as if the unknown animal was pressing its nail into the bark to determine the location of its prey.

The strip of bark was always left hanging and then the same finger or thumb-nail appeared to have been used to tear out two or three pieces of the underlying timber. These were usually 120 to 150 mm long, 30 to 40 mm wide and 10 to 20 mm thick and lying directly beneath where they had fallen to the ground. This always exposed the five to seven mm wide tunnel of the wood-boring larvae that was aligned vertically within the tree tear.

Only a 50 or 60 mm length of the wood-boring larvae's tunnel was exposed always near the base of the tree tear and only the top quarter of the tunnel was removed when the elongated chip of wood had been torn out. There was never any damage to the wood-boring larvae's tunnel as a cockatoo would create to enlarge the hole in the top of the tunnel. Instead, the animal must have inserted an elongated fingernail or a twig and hooked the larvae cleanly out of its resting place.

I was particularly impressed by the efficiency used in the predation of the wood-boring larvae with every attempt to locate and extract the grub exactly the same and every attempt successful. Almost every wattle tree had its single larvae removed and all the tree tears looked as if they had been created very recently over a period of a month or so. Some had been ripped only a night or two ago and others were days or weeks older as if an animal had repeatedly revisited the site. Wattle trees in every location from level ground to steep slopes beside a creek had been targeted to remove the larvae (see Figure 8).

Nigel and Jeanie Francis had preserved one of the larvae, cream to light brown in colour, cylindrical with a small, hardened head and strong jaws, 50 mm long and 7 mm wide behind the head, either *Eurynassa australis* or *Penthea pardalis*. Known as round-headed borers of the Cerambycidae family or longicorn beetles, they feed upon the solid tissues of living and dead wood.

There was no evidence to suggest that local Aboriginal people had been harvesting these grubs as there was no sign of tool use and the bark and timber was too strong to have been ripped open by human finger-nails. Whatever had been feeding on the grubs was very careful in not disturbing the vegetation surrounding the tree and I could not think of any known animal that could predate on the round-headed borers in such a way. I have a sample of one of the precise vertical slots from the base of small wattle trees that Nigel Francis cut for me on my request. This was the only piece of physical evidence that the author encountered and which could be physically measured.

The author welcomes suggestions on the species most likely responsible for creating the precise vertical slots removed from the base of small wattle trees used in the predation of the wood-boring larvae. If there are no suggestions then it offers an opportunity for field researchers to keep in mind and if encountered there is the possibility of collection of biological material suitable for DNA analysis from what appear to be fingernail indentations in the bark and associated with the chips of wood torn from the tree.

Discussion

Cryptozoology has a feature most uncommon in any line of investigation, a complete absence of a physical reality, the very feature that enables us to operate within our reality. If there is no hard evidence then there can be no possibility of an existence. There are illustrations, photographs and plaster casts. All cryptozoological evidence is soft evidence existing only in the communication of individuals, telling stories. The problem is that telling stories is the only method that enables us to operate within our reality.

Conclusion

I have really enjoyed the stories that people have related to me in regard to their encounters with both identifiable and unidentifiable animals. Occasionally I had the opportunity to visit the locations where these encounters were claimed to have occurred and the eyewitnesses were enthusiastic as they described their encounters. I was unable to decide whether these encounters with unidentifiable animals actually took place though I could find no reason why the eyewitness would bother to report to me fabrications, as it would have been easy for me to deride their communication.

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